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EXAMINER

DEAN, RAYMOND S

Michael C Stuart  
Cohen Pontani Lieberman & Pavane  
551 Fifth Avenue  
Suite 1210  
New York, NY 10176

ART UNIT

PAPER NUMBER

2618

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Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/030,798 | <b>Applicant(s)</b><br>SALONAH O ET AL. |  |
|                              | <b>Examiner</b><br>Raymond S. Dean   | <b>Art Unit</b><br>2618                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 24, 29 - 37, 46 - 160, 163 - 178 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 24, 29 - 37, 46 - 160, 163 - 178 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☒ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0102</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 17, 2006 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 22, 29, and 163 have been considered but are moot in view of the new ground(s) of rejection.

Charbonnier, as asserted in the Office Action dated November 6, 2005, teaches comparing the measured strength of the communication from the current cell and the measured strength of the communication from the at least one other cell after the step of modifying (Column 8 lines 41 – 57). Chrichton et al. (5,722,072) teaches measuring a duration of time for which the measured signal strength of the communication from at least one other cell exceeds the measured strength of communication from the current cell (Figure 7, Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62, Column 6 lines 49 – 51, Column 7 lines 43 – 47), changing the current cell with which the station is associated, wherein the current cell is changed only if the measured duration of time

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is at least a predetermined time period (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51). It would have been obvious to modify the method of Charbonnier with the handoff method of Crichton for the purpose of providing reliable handoff in a dense population of users as taught by Crichton.

### ***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United Kingdom on July 14, 1999. It is noted, however, that applicant has not filed a certified copy of the 9916565.6 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 166 recites the limitation “**the** variable predetermined time period” in lines 1 –2 and “**the** environment and traffic”. There is insufficient antecedent basis for these limitations in the claim.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 3, 7 – 22, 29, 33, 46 – 47, 51 – 57, 61 – 69, 73 – 82, 86 – 95, 99 – 110, 114 – 126, 130 – 143, 147 – 160, 163 – 178 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charbonnier (5,241,686) in view of Crichton et al. (5,722,072).

Regarding Claims 1, 29, Charbonnier teaches a method for selecting a new cell for a station in a cellular telecommunication system, said station being associated with a current cell, said method comprising the steps of: measuring at the station the strength of a communication from said current cell (Column 8 lines 19 – 22, Column 8 lines 41 – 57, Esubi is the strength of the communication); measuring at the station the strength of a communication from at least one other cell (Column 8 lines 41 – 57); decoding a communication from at least one of the current cell and the at least one other cell to obtain offset information (Column 2 lines 26 – 47, Column 9 lines 16 – 17, the offset information is the field correction parameter); modifying the measured strength of the communication from the at least one of the cell and the at least one other cell in dependence on the obtained offset information (Column 2 lines 26 – 47, Column 8 lines 41 – 57); comparing the measured strength of the communication from the current cell and the measured strength of the communication from the at least one other cell after the step of modifying (Column 8 lines 41 – 57).

Charbonnier does not teach measuring a duration of time for which the measured strength of the communication from at least one other cell exceeds the measured strength of the communication from the current cell during said step of comparing and changing the current cell which the station is associated, wherein the current cell is changed only if the measured duration of time is at least a predetermined time period.

Crichton teaches measuring a duration of time for which the measured signal strength of the communication from at least one other cell exceeds the measured strength of the communication from the current cell (Figure 7, Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62, Column 6 lines 49 – 51, Column 7 lines 43 – 47), changing the current cell with which the station is associated, wherein the current cell is changed only if the measured duration of time is at least a predetermined time period (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

It would have been obvious to modify the method of Charbonnier with the handoff method of Crichton for the purpose of providing reliable handoff in a dense population of users as taught by Crichton.

Regarding Claim 2, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 1. Charbonnier further teaches a value is added to the measured strength of the communication from the at least one other cell (Column 8 lines 41 – 45).

Regarding Claim 3, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 1. Charbonnier further teaches a function is applied to the

measured strength of the communication from the at least one other cell (Column 8 lines 41 – 45).

Regarding Claims 7, 33, 34, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1, 2, 3. Charbonnier further teaches wherein the offset information as to how the measured strength of a communication from a neighboring cell is to be modified is in the communication from at least one other cell (Column 6 lines 59 – 68).

Regarding Claim 8, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 7. Charbonnier further teaches wherein the station is provided with timing information defining when the station should next check for the offset information (Column 6 lines 59 – 68, the relays continuously broadcast the modifying information, when said relays broadcast said modifying information the mobile then reads said modifying information thus the reception of said modifying information is a cue to the mobile station to read said modifying information, since the broadcasting is done on a continuous or periodic basis the mobile station will check for said broadcast information on a continuous or periodic basis, the mobile station will therefore be provided with timing information enabling said mobile station to periodically read said modifying information).

Regarding Claim 9, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 8. Charbonnier further teaches wherein the timing information is in the communication from the neighboring cell (Column 6 lines 59 – 68, the relays continuously broadcast the modifying information, when said relays broadcast

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said modifying information the mobile then reads said modifying information thus the reception of said modifying information is a cue to the mobile station that it is time to read said modifying information, the cue is therefore the timing information).

Regarding Claim 11, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 1. Charbonnier further teaches wherein information defining the period of time is in the communication from the current cell (Column 8 lines 46 – 57, in order for another cell to be selected the value of the corrected field of said cell must be higher than the corrected field of the current cell for a predetermined period of time, said predetermined period of time will be obtained from the scanning of the beacon routes).

Regarding Claims 12, 46 – 47, and 51 – 55, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 9, and 11, 164. Charbonnier further teaches wherein a value is added to the measured strength of the communication from the current cell prior to said step of comparing (Column 8 lines 41 – 50).

Regarding Claim 13, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 12. Charbonnier further teaches wherein if the current cell is changed in said step of changing from an old current cell to a new current cell, the value is no longer added to the measured strength of the communication from the old current cell and a value is added to the measured strength of the communication from the new current cell (Column 8 lines 46 – 50, as the mobile station moves the old current cell will



eventually not be a part of cells that are scanned thus no correction parameter will not be added to beacon route for said old current cell).

Regarding Claim 14, 56 – 57, 61 – 67 Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 13. Charbonnier further teaches wherein the communication from the at least one of the current cell and the at least one other cell comprises the broadcast control channel (Column 4 lines 51 – 55, Column 6 lines 59 – 60, the beacon channel is the broadcast control channel).

Regarding Claims 15, 68 – 69, 73 – 80, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 14. Charbonnier further teaches wherein the station has at least one common channel in the current cell (Column 4 lines 51 – 55, Column 6 lines 59 – 60, the beacon channel is the broadcast control channel, the broadcast control channel is a common channel).

Regarding Claims 16, 81 – 82, 86 – 93 Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 14. Charbonnier further teaches wherein the station has at least one dedicated channel in the current cell (Column 4 lines 11 – 13, cellular radio communication networks comprise CDMA networks, which have dedicated data channels).

Regarding Claims 17, 94 – 95, 99 – 108 Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 16. Charbonnier further teaches wherein the station is arranged to use the same frequency in the current cell and the at least one other cell (Column 4 lines 11 – 13, cellular radio communication networks comprise CDMA networks, which conduct frequency reuse).

Regarding Claims 18, 109 – 110, 114 – 124 Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 17. Charbonnier further teaches wherein the station is a mobile terminal (Column 8 lines 19 – 22).

Regarding Claims 19, 125 – 126, 130 – 141 Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 18. Charbonnier further teaches wherein the telecommunication system is a code division multiple access system (Column 4 lines 11 – 13, cellular radio communication networks comprise CDMA networks).

Regarding Claims 20, 142 – 143, 147 – 159, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1 – 3, 7 – 19. Charbonnier further teaches wherein the telecommunication system is a time division multiple access system (Column 4 lines 11 – 13, cellular radio communication networks comprise TDMA networks).

Regarding Claims 21, 160, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 19, 20. Charbonnier further teaches wherein the telecommunication system is code division/time division multiple access hybrid (Column 4 lines 11 – 13, cellular radio communication networks comprise hybrid CDMA/TDMA networks).

Regarding Claim 22, Charbonnier teaches a station for use in a cellular communication system, said station being associated with a current cell, said station comprising: means for measuring the received strength of a communication from said current cell (Column 8 lines 19 – 22, Column 8 lines 41 – 57, Esubi is the strength of the

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communication); means for measuring the received strength of a communication from at least one other cell (Column 8 lines 41 – 57); means for decoding a communication from at least one of the current cell and the at least one other cell to obtain offset information (Column 2 lines 26 – 47, Column 9 lines 16 – 17, the offset information is the field correction parameter); means for modifying the measured strength of the communication from the at least one of the current cell and the at least one other cell in dependence on the obtained offset information (Column 2 lines 26 – 47, Column 8 lines 41 – 57); means for comparing the measured strength of the communication from the at least one other cell, and the measured received strength of the communication from the current cell, at least one of the measured strengths having been modified by the means for modifying (Column 8 lines 41 – 57).

Charbonnier does not teach means for measuring a duration of time for which the measured strength of the communication from at least one other cell exceeds the measured strength of the communication from the current cell, at least one of the measured strengths having been modified by the means for modifying; and means for changing, the current cell which the station is associated, wherein the current cell is changed only if the measured duration of time is at least a predetermined time period.

Crichton teaches means for measuring a duration of time for which the measured signal strength of the communication from at least one other cell exceeds the measured strength of the communication from the current cell (Figure 7, Column 2 lines 26 – 27, 38 – 47, Column 4 lines 58 – 62, Column 6 lines 49 – 51, Column 7 lines 43 – 47), means for changing, the current cell with which the station is associated, wherein the

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current cell is changed only if the measured duration of time is at least a predetermined time period (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

It would have been obvious to modify the system of Charbonnier with the handoff method of Crichton for the purpose of providing reliable handoff in a dense population of users as taught by Crichton.

Regarding Claim 163, Charbonnier teaches a station for use in a cellular communication system, said station being associated with a current cell, said station comprising: means for measuring the received strength of a communication from said current cell (Column 8 lines 19 – 22, Column 8 lines 41 – 57, Esubi is the strength of the communication); means for measuring the received strength of a communication from at least one other cell (Column 8 lines 41 – 57); means for decoding a communication from at least one of the current cell and the at least one other cell to obtain offset information (Column 2 lines 26 – 47, Column 9 lines 16 – 17, the offset information is the field correction parameter); means for modifying the measured strength of the communication from the at least one of the current cell and the at least one other cell in dependence on the obtained offset information (Column 2 lines 26 – 47, Column 8 lines 41 – 57); means for comparing the measured strength of the communication from the at least one other cell, and the measured received strength of the communication from the current cell, at least one of the measured strengths having been modified by the means for modifying (Column 8 lines 41 – 57); and a network element for sending communications to the station, said network element being arranged to send offset information to the station (Column 9 lines 16 – 17, the relay is a network element), the

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offset information being used by the station to modify measurements of the strength of communications from at least one other cell (Column 2 lines 26 – 47, Column 8 lines 41 – 57).

Charbonnier does not teach means for measuring a duration of time for which the measured strength of the communication from at least one other cell exceeds the measured strength of the communication from the current cell, at least one of the measured strengths having been modified by the means for modifying; and means for changing, the current cell which the station is associated, wherein the current cell is changed only if the measured duration of time is at least a predetermined time period.

Crichton teaches means for measuring a duration of time for which the measured signal strength of the communication from at least one other cell exceeds the measured strength of the communication from the current cell (Figure 7, Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62, Column 6 lines 49 – 51, Column 7 lines 43 – 47), means for changing, the current cell with which the station is associated, wherein the current cell is changed only if the measured duration of time is at least a predetermined time period (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

It would have been obvious to modify the system of Charbonnier with the handoff method of Crichton for the purpose of providing reliable handoff in a dense population of users as taught by Crichton.

Regarding Claim 164, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 163. Charbonnier further teaches wherein the step of decoding a communication is dependent upon the measured strength of the

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communication satisfying a predetermined condition (Column 2 lines 26 – 47, Column 9 lines 16 – 17, in order for the field correction parameter to be properly received the signal strength must meet a minimum received signal strength threshold).

Regarding Claim 165, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 1. Crichton further teaches wherein the predetermined time period is variable (Column 6 lines 66 – 67).

Regarding Claim 166, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 1. Crichton further teaches wherein the variable predetermined time period is dependent on at least one of an environment and traffic (Column 6 lines 2 – 5, trend analysis comprises traffic conditions).

Regarding Claims 167, 169, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1, 29. Crichton further teaches detecting, at a first time during a step of comparing, when the measured strength of the at least one other cell exceeds the measured strength of the current cell (Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62), wherein said step of measuring comprises measuring a duration of time starting at the first time for which the measured strength of the communication from the at least one other cell exceeds the measured strength of the communication from the current cell (Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62), and wherein said step of changing comprises changing the current cell with which the station is associated only if the measured duration of time reaches a second time, the first time and second time defining the predetermined time period (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

Regarding Claim 168, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 22. Crichton further teaches means for detecting, at a first time, when the measured strength of the at least one other cell exceeds the measured strength of the current cell (Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62), wherein said means for measuring comprises means for measuring a duration of time starting at the first time for which the measured strength of the communication from the at least one other cell exceeds the measured strength of the communication from the current cell (Column 2 lines 26 – 27, lines 38 – 47, Column 4 lines 58 – 62), and wherein said means for changing comprises means for changing the current cell with which the station is associated only if the measured duration of time reaches a second time, the first time and second time defining the predetermined time period (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

Regarding Claims 170, 172, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1, 29. Crichton further teaches wherein during the step of changing, the current cell is not changed when the measured strength of the communication from the at least one other cell does not exceed the measured strength of the communication from the current cell for the duration of the predetermined time period (Column 4 lines 58 – 62, if RXLEV does not exceed the threshold the mobile will not be handed over to that particular cell).

Regarding Claim 171, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 22. Crichton further teaches wherein said means for changing does not change the current cell when the measured strength of the

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communication from the at least one other cell does not exceed the measured strength of the communication from the current cell for the duration of the predetermined time period (Column 4 lines 58 – 62, if RXLEV does not exceed the threshold the mobile will not be handed over to that particular cell).

Regarding Claims 173, 175, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claims 1, 29. Crichton further teaches wherein said steps of measuring at the station the strength of a communication from the current cell and measuring at the station the strength of a communication from at least one other cell are performed simultaneously (Column 2 lines 26 – 27).

Regarding Claim 174, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 22. Crichton further teaches wherein said means for measuring the received strength of a communication from the current cell measures the received strength of a communication from the current cell at the same time that means for measuring the received strength of a communication from the at least one other cell measures the received strength of a communication from that at least one other cell (Column 2 lines 26 – 27, typical handoff in GSM comprises measuring the received signal strength of the serving cell at the same time as measuring the received signal strength of a neighbor cell).

Regarding Claims 176, 178, Charbonnier teaches a method for selecting a new cell/changing at least one current cell for a station in a cellular telecommunication system, said station being associated with a current cell, said method comprising the steps of: measuring at the station the strength of a communication from said current cell



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(Column 8 lines 19 – 22, Column 8 lines 41 – 57, Esubi is the strength of the communication); measuring at the station the strength of a communication from at least one other cell (Column 8 lines 41 – 57); decoding a communication from at least one of the current cell and the at least one other cell to obtain offset information (Column 2 lines 26 – 47, Column 9 lines 16 – 17, the offset information is the field correction parameter); modifying the measured strength of the communication from the at least one of the cell and the at least one other cell in dependence on the obtained offset information (Column 2 lines 26 – 47, Column 8 lines 41 – 57); comparing the measured strength of the communication from the current cell and the measured strength of the communication from the at least one other cell after the step of modifying (Column 8 lines 41 – 57); and depending on the results of said step of comparing, changing the current cell with which the station is associated, wherein the current cell is changed only if the condition that the measured strength of the communication from the at least one other cell exceeds the measured strength of the communication from the current cell is met (Column 8 lines 41 – 57).

Charbonnier does not teach wherein the current cell is changed if the condition continues to be met for the duration of a predetermined period of time.

Crichton teaches wherein the current cell is changed if the condition continues to be met for the duration of a predetermined period of time (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

It would have been obvious to modify the method of Charbonnier with the handoff method of Crichton for the purpose of providing reliable handoff in a dense population of users as taught by Crichton.

Regarding Claim 177, Charbonnier teaches a station for use in a cellular communication system, said station being associated with a current cell, said station comprising: means for measuring the received strength of a communication from said current cell (Column 8 lines 19 – 22, Column 8 lines 41 – 57, Esubi is the strength of the communication); means for measuring the received strength of a communication from at least one other cell (Column 8 lines 41 – 57); means for decoding a communication from at least one of the current cell and the at least one other cell to obtain offset information (Column 2 lines 26 – 47, Column 9 lines 16 – 17, the offset information is the field correction parameter); means for modifying the measured strength of the communication from the at least one of the current cell and the at least one other cell in dependence on the obtained offset information (Column 2 lines 26 – 47, Column 8 lines 41 – 57); means for comparing the measured strength of the communication from the at least one other cell, and the measured received strength of the communication from the current cell, at least one of the measured strengths having been modified by the means for modifying (Column 8 lines 41 – 57); and means for changing, depending on the results of the comparison performed by the comparing means, the current cell with which the station is associated, wherein the current cell is changed only if the condition that the measured strength of the communication for the at least one other cell exceeds

the measured strength of the communication from the current cell is met (Column 8 lines 41 – 57).

Charbonnier does not teach wherein the current cell is changed if the condition continues to be met for the duration of a predetermined period of time.

Crichton teaches wherein the current cell is changed if the condition continues to be met for the duration of a predetermined period of time (Figure 7, Column 2 lines 38 – 47, Column 6 lines 49 – 51).

It would have been obvious to modify the method of Charbonnier with the handoff method of Crichton for the purpose of providing reliable handoff in a dense population of users as taught by Crichton.

7. Claims 4 – 6, 23 – 24, 31 – 32, 35 – 37, 48 – 50, 58 – 60, 70 – 72, 83 – 85, 96 – 98, 111 – 113, 127 – 129, 144 – 146 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charbonnier (5,241,686) in view of Crichton et al. (5,722,072) and in further view of Karlsson (5,640,677).

Regarding Claim 4, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 164. Charbonnier in view of Crichton does not teach wherein the predetermined condition is that the measured strength of the communication from the at least one other cell is greater than a threshold.

Karlsson teaches a predetermined condition that the measured strength of the communication from the at least one other cell is greater than a threshold (Column 11 lines 25 – 28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predetermined condition taught above by Karlsson in the wireless system of Charbonnier in view of Crichton as an alternative means for selecting the best server cell for the mobile station thereby enabling reliable communication links to be maintained as said mobile station changes geographic locations as taught by Karlsson.

Regarding Claim 5, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claim 4. Karlsson further teaches wherein the threshold is defined relative to the measured strength of the communication from the current cell (Column 11 lines 25 – 28, in order for the neighbor cell to be selected the threshold must be higher than the strength of the communication from the current cell thus said threshold will be defined relative to the strength of the communication from the current cell).

Regarding Claim 6, 32, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4, 6. Karlsson further teaches wherein information defining the threshold is included in the communication from the current cell (Column 10 lines 3 – 8, Column 10 lines 63 – 67, Column 11 lines 1 – 3, Column 11 lines 10 – 11).

Regarding Claim 23, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 22. Charbonnier does not teach said at least one other station requiring a different procedure in order to determine if a new current cell is required.

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Karlsson teaches at least one other station requiring a different procedure in order to determine if a new current cell is required (Column 11 lines 25 – 28, the procedure is based on the threshold for the neighbor cell).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the different procedure taught above by Karlsson in the wireless system of Charbonnier in view of Crichton as an alternative means for selecting the best server cell for the mobile station thereby enabling reliable communication links to be maintained as said mobile station changes geographic locations as taught by Karlsson.

Regarding Claim 24, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claim 23. Charbonnier teaches wherein the signaling sent by said network to said at least one station and to said at least one other station is dependent on the procedure required by the respective stations to determine if a new current cell is required (Column 6 lines 59 – 68, the correction parameters are broadcasted because the procedure for selecting a new current cell depends on said correction parameters unlike the threshold procedure of Karlsson as described above, which does not depend on said correction parameters).

Regarding Claim 31, Charbonnier in view of Crichton teaches all of the claimed limitations recited in Claim 3. Charbonnier in view of Crichton does not teach wherein the predetermined condition is that the measured strength of the communication from the at least one other cell is greater than a threshold.

Karlsson teaches a predetermined condition that the measured strength of the communication from the at least one other cell is greater than a threshold (Column 11 lines 25 – 28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predetermined condition taught above by Karlsson in the wireless system of Charbonnier in view of Crichton as an alternative means for selecting the best server cell for the mobile station thereby enabling reliable communication links to be maintained as said mobile station changes geographic locations as taught by Karlsson.

Regarding Claims 35 – 37, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein offset information as to how the measured strength of a communication from a neighboring cell is to be modified is in the communication from at least one other cell (Column 6 lines 59 – 68).

Regarding Claims 48 – 50, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein a value is added to the measured strength of the communication from the current cell prior to the comparing step (Column 8 lines 41 – 50).

Regarding Claims 58 – 60, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein the communication from the at least one of the current cell and

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the at least one other cell comprises the broadcast control channel (Column 4 lines 51 – 55, Column 6 lines 59 – 60, the beacon channel is the broadcast control channel).

Regarding Claims 70 – 72, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein said station has at least one common channel in the current cell (Column 4 lines 51 – 55, Column 6 lines 59 – 60, the beacon channel is the broadcast control channel, the broadcast control channel is a common channel).

Regarding Claims 83 – 85, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein the station has at least one dedicated channel in the current cell (Column 4 lines 11 – 13, cellular radio communication networks comprise CDMA networks, which have dedicated data channels).

Regarding Claims 96 – 98, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein the station is arranged to use the same frequency in the current cell and the at least one other cell (Column 4 lines 11 – 13, cellular radio communication networks comprise CDMA networks, which conduct frequency reuse).

Regarding Claims 111 – 113, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein the station is a mobile terminal (Column 8 lines 19 – 22).

Regarding Claims 127 – 129, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier

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further teaches wherein the telecommunication system is a code division multiple access system (Column 4 lines 11 – 13, cellular radio communication networks comprise CDMA networks).

Regarding Claims 144 – 146, Charbonnier in view of Crichton and in further view of Karlsson teaches all of the claimed limitations recited in Claims 4 – 6. Charbonnier further teaches wherein the telecommunication system is a time division multiple access system (Column 4 lines 11 – 13, cellular radio communication networks comprise TDMA networks).

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S. Dean whose telephone number is 571-272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Raymond S. Dean  
June 26, 2006



EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600